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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/743,110	12/23/2003	Norikazu Arai	02860.0637-06	8016
22852	7590	06/02/2006	EXAMINER	
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413			CHU, KIM KWOK	
			ART UNIT	PAPER NUMBER
			2627	

DATE MAILED: 06/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/743,110	<b>Applicant(s)</b> ARAI ET AL.	
	<b>Examiner</b> Kim-Kwok CHU	<b>Art Unit</b> 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE Three MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on Amendments filed on 3/31/06 and 4/17/06.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,7,8,77,84,85,135 and 136 is/are rejected.
- 7) ☒ Claim(s) See Continuation Sheet is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. 09/487,928.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Objections***

1. Claims 77 and 140 are objected to because of the following informalities:

(a) in claim 77, line 14, the term "passes through the diffractive portion" should be changed to --passes through the first diffractive portion--; and

(b) in the newly added claim 140, line 1, the term "The objective lens of 97" should be changed to --The objective lens of claim 96-- because claim 97 has been cancelled.

Appropriate correction is required.

### **Double Patenting**

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1, 7, 8, 135 and 136 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,870,805. Although the conflicting claims are not identical, they are not patentably distinct from each other.

4. With respect to the present claims 1, 135 and 136, the '805 patent's claim 1 has every limitation of the present claims 1, 135 and 136 except the following amended feature "where the n of the first n-th ordered diffracted ray is equal to the n of the second n-th ordered diffracted ray". This is an obvious limitation because the "n" used in the

'805 patent is commonly assigned to label various order diffracted rays of the first light flux and the second light flux such as  $n$  is zero,  $n$  is  $\pm$  one etc.

5. With respect to the present claim 7, the '805 patent's claim 1 has every limitation of the present claim 7 except the following amended feature " $\lambda_1 < \lambda_2$ , and  $t_1 < t_2$ ". This is an obvious limitation because a shorter wavelength such as 635 nm is used on a thin recording medium such as a DVD which is 0.6 mm.

6. With respect to the present claim 8, the '805 patent's claim 1 has every limitation of the present claim 8 except the following amended feature " $NA_1 > NA_2$ ". This is an obvious limitation because a larger number aperture such as  $NA_1$  is 0.8 for a higher density recording medium (DVD) and a smaller numerical aperture such as  $NA_2$  is 0.45 is for lower density recording medium (CD-ROM).

7. Claims 77, 84 and 85 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 19 of U.S. Patent No. 6,870,805. Although the conflicting claims are not identical, they are not patentably distinct from each other.

8. With respect to the present claim 77, the '805 patent's claim 19 has every limitation of the present claim 77.

9. With respect to the present claim 84, the '805 patent's claim 19 has every limitation of the present claim 84 except the following amended feature " $\lambda_1 < \lambda_2$ , and  $t_1 < t_2$ ". This is an obvious limitation because a shorter wavelength such as 635 nm is used on a thin recording medium such as a DVD which is 0.6 mm.

10. With respect to the present claim 85, the '805 patent's claim 19 has every limitation of the present claim 85 except the following amended feature " $NA_1 > NA_2$ ". This is an obvious limitation because a larger number aperture such as  $NA_1$  is 0.8 for a higher density recording medium (DVD) and a smaller numerical aperture such as  $NA_2$  is 0.45 is for lower density recording medium (CD-ROM).

***Allowable Subject Matter***

11. Claims 9, 10, 13-15, 19, 25, 26, 50, 62, 65, 68, 76, 86, 87, 90-92, 96, 102, 113, 114, 128, 134 and 137-140 are objected to as being dependent upon rejected claims based on obvious double patenting, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Kim CHU whose telephone number is (571) 272-7585 between 9:30 am to 6:00 pm, Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch, can be reached on (57) 272-7589.

The fax number is:

(571) 273-8300 (for formal communications intended for entry. Or:

(571) 273-7585, (for informal or draft communications, please label "PROPOSED" or "DRAFT").

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished application is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9191 (toll free).

  
THANG V. TRAN  
PRIMARY EXAMINER

Kim-Kwok CHU



Examiner AU2627  
May 26, 2006

(571) 272-7585



**Continuation of Disposition of Claims: Claims pending in the application are 1,7-10,13-15,19,25,26,50,62,65,68,76,77,84-87,90-92,96,102,113,114,128 and 134-140.**

**Continuation of Disposition of Claims: Claims objected to are 9,10,13-15,19,25,26,50,62,65,68,76,86,87,90-92,96,102,113,114,128,134 and 137-140.**